

IN THE CLAIMS:

1-31. (Previously Canceled)

32-45 (Presently Canceled)

46-48. (Previously Canceled)

49-56. (Presently Canceled)

57. (Presently added): A method for identifying a compound capable of treating a cellular growth or proliferative disorder, wherein the cellular growth or proliferative disorder is selected from the group consisting of lung cancer, breast cancer and colon cancer, the method comprising:

- a) contacting a polypeptide comprising an amino acid sequence which is at least 95% identical to the amino acid sequence of SEQ ID NO:2 or to a fragment comprising at least 200 contiguous amino acids of SEQ ID NO:2, with a test compound under conditions suitable for binding, wherein the polypeptide or fragment thereof has galactosyltransferase-1 activity;
- b) detecting binding of the test compound to the polypeptide or fragment thereof to identify a test compound that binds to the polypeptide or fragment thereof;
- c) incubating the test compound which binds to the polypeptide or fragment thereof with cells selected from the group consisting of lung cancer cells, breast cancer cells and colon cancer cells; and
- d) determining whether or not the test compound inhibits growth or proliferation of the cells to thereby identify a compound capable of treating lung cancer, breast cancer or colon cancer.

58. (Presently added): A method for identifying a compound capable of treating a cellular growth or proliferative disorder, wherein the cellular growth or proliferative disorder is selected from the group consisting of lung cancer, breast cancer and colon cancer, the method comprising:

- a) contacting a polypeptide comprising the amino acid sequence of SEQ ID NO:2 or a fragment comprising at least 200 contiguous amino acids of SEQ ID NO:2, wherein the polypeptide or fragment thereof has galactosyltransferase-1 activity, with a test compound under conditions suitable for binding;
- b) detecting binding of the test compound to the polypeptide or fragment thereof to identify a test compound that binds to the polypeptide or fragment thereof;
- c) incubating the test compound which binds to the polypeptide or fragment thereof with cells selected from the group consisting of lung cancer cells, breast cancer cells and colon cancer cells; and
- d) determining whether or not the test compound inhibits growth or proliferation of the cells to thereby identify a compound capable of treating lung cancer, breast cancer or colon cancer.

59. (Presently Added): The method of any one of claims 57 or 58, wherein the compound is a small molecule.

60. (Presently Added): The method of any one of claims 57 or 58, wherein the polypeptide is encoded by the nucleotide sequence set forth in SEQ ID NO:1 or SEQ ID NO:3.

61. (Presently Added): The method of any one of claims 57 or 58, wherein the polypeptide further includes heterologous sequences.

62. (Presently Added): The method of any one of claims 57 or 58, wherein the binding of the test compound to the polypeptide is detected by a method selected from the group consisting of:

- a) direct detecting of test compound/polypeptide binding;
- b) a competition binding assay;
- c) an immunoassay;
- d) a yeast two-hybrid assay; and
- e) an assay for galactosyltransferase-1 activity.